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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/880,103 | 06/14/2001 | Itzik Ben-Bassat | 05193.00009 | 3821 |
| 22907 7590 05/30/2007 BANNER & WITCOFF, LTD. 1100 13th STREET, N.W. SUITE 1200 WASHINGTON, DC 20005-4051 | | | EXAMINER HUYNH, SON P | |
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|--------------------------------------|--|--|
| Office Action Summary | Application No. 09/880,103 | Applicant(s) BEN-BASSAT ET AL. | |
| | Examiner Son P. Huynh | Art Unit 2623 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 April 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 13-16, 18, 24, 26 and 31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 13-16, 18, 24, 26 and 31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 June 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 4/13/2007 has been entered.

Response to Arguments

2. Applicant's arguments with respect to claims 13-16, 18, 24, 26, 31 have been considered but are moot in view of the new ground(s) of rejection.

Applicant argues support for claim 15, lines 6-12, "a receiver portion... and including a programmable frequency synthesizer and programmable modulator for allowing a transmission/reception frequency and modulation to be selectively modified by the personal computer" appears in all three of figures 2,3, and 5 and the description of these limitation is found at page 12, lines 11-16 (page 5, paragraph 5-page 6, paragraph 2). This argument is respectfully traversed.

Page 12, lines 11-16 describes the transmitter card 25 in figure 2 (see page 11, paragraph 2-page 12, line 16). Furthermore, all three of figures 2,3, and 5 discloses transmitter card (which corresponds to "transmitter portion" as claimed) comprises synthesizer 14, converter 16, controller 26, modulator 40 (see description in page 11, paragraph 2-page 12, line 16; page 14, paragraph 2, page 16, paragraph 3). But, instead, the specification discloses the receiver card (which corresponds to "receiver portion" as claimed) comprises a tuner, a demodulator, a demux and decoder, CPU, RAM (see figure 3 or figure 5). Thus, the specification and figure 5 (or figures 2, 3) do not support the limitation "a receiving portion... further including a programmable frequency synthesizer and programmable modulator for allowing a transmission/reception frequency and modulation to be selectively modified by the personal computer" as claimed.

Claims 1-12, 17, 19-23, 25, 27-30, 32-41 have been canceled.

Claim Objections

3. Claim 24 is objected to because of the following informalities:

Claim 24, lines 1-2, recites limitation "the transmitter card" should be replaced as
– the transmitter portion --

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 15-16, 18, and 24 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim 15, lines 6-12, recites the limitation "... a receiver portion.... and including a programmable frequency synthesizer and programmable modulator for allowing a transmission/reception frequency and modulation to be selectively modified by the personal computer" is not supported by the Specification. Instead, the Specification discloses the transmitter card/portion (25,60, 107) comprises synthesizer (14) and modulator 40 (figures 2-3,5) and receiver card/portion comprises demodulator (53), decoder (59) (see figures 3, 5, page 15, paragraph 2, page 16, paragraph 3). The Specification does not show "a receiver portion including a programmable frequency synthesizer and programmable modulator for allowing a transmission/reception... as claimed in claim 15.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rakib et al. (US 2004/0172658 A1) in view of Fleming (US 6,073,188), and further in view of Soleimani et al. (US 5,678,228).

Regarding claim 13, Rakib discloses a transceiver (transceiver in gateway 14 – figures 3-4B) for a personal computer (e.g., computer 22, 24, 26 – figures 3), the personal computer having a port coupled to LANs 18, 20 including USB (figures 3, 4), the transceiver comprising:

a transceiver that resides in a box external to the computer and that transmits radio frequency signals upstream responsive to data received from the personal computer via the port and that receives radio frequency signals from a satellite and converts the received signals to data for transfer to the personal computer via the port (transceiver that resides inside the gateway (14) external to the computer (22, or 24, or 26) and that transmits radio frequency upstream responsive to data received from the

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personal computer via the port coupled to the LAN and that receives radio frequency signals from a satellite and converts the received signal to data for transfer to the personal computer 22, 24, etc. via the port coupled to the LAN – see include, but are not limited to, figures 3-4b, paragraphs 0022, 0039, 0051-0052, 0060, 0079-0081, 0118, 0122, 0179, 0186).

Rakib further discloses the transceivers includes upstream transmitter for receiving digital data from the host computer, and transmits it to a satellite uplink facility via a direct connection (paragraph 0022, lines 29-36), and shared function would include the power supply (paragraph 0023). The LANs are inexpensive and there many sources of inexpensive network adapters, hubs and peripherals, PCI bus (paragraphs 0079, 0122, 0183) and the gateway also has interface to USB (figure 4A). However, Rakib does not explicitly discloses the upstream is transmitted via satellite, the transceiver includes a VSAT network hub, the transceiver including a satellite interface for coupling a power supply external to the box to a satellite antenna amplifier external to the box via a connection which is transmits radio frequency signal; the port coupled to the computer is an USB type port.

Soleimani discloses a satellite transceiver includes a VSAT network hub (see include, but are not limited to, figures 1-3, col. 2, line 58-col. 3, line 22). The transceiver including a satellite antenna interface for coupling a power supply external to the box to a satellite antennal amplifier via a connection which transmits radio frequency signals

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(interpreted as IDU 16 including an interface to ODU for coupling power supply external to the IDU to satellite antenna amplifier 28 via connection between IDU and ODU which transmit upstream and downstream signals – see include, but are not limited to, figures 1-3, col. 3, line 23-col. 4, line 36, col. 5, lines 20-30, col. 6, lines 22-28, lines 48-67).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Rakib to use the teaching as taught by Soleimani in order to reduce powers consumption thereby reduce overall cost of the satellite transceiver (col. 2, lines 5-7, lines 35-41). However, Rakib in view of Soleimani does not explicitly disclose the port coupled to the computer is USB type port.

Fleming discloses using network hub (122) which couples USB port to USB interfaces (124) via a USB bus (126) to a computer (figure 1a, col. 4, lines 19-42). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Rakib in view of Soleimani to use the teaching using USB type port as taught by Fleming in order to improve convenience for connecting different devices (col. 2, lines 32-51).

Regarding claim 14, Rakib in view of Soleimani and Fleming teaches a transceiver as discussed in the rejection of claim 13. Rakib further discloses an auxiliary bus directly connecting the transmitter card portion and the receiver cart portion of the transceiver (interpreted as any bus connected between transmitter portion and receiver portion such as bus including combiner 90, or bus 160, etc. – figure 4A).

8. Claims 15-16, 18, 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rakib et al. (US 2004/0172658 A1), in view of Dinwiddie et al. (US 6,481,013), and Soleimani et al. (US 5,678,228, and further in view of Emi (US 5,715,275)).

Regarding claim 15, Rakib discloses a transceiver (transceiver in gateway – figures 3-4b) for a personal computer (computer 22, or computer 24, etc. – figures 3-4b), the personal computer having a port for coupling to the gateway (figures 3-4b), the transceiver comprising:

- a transmitter portion that resides in a box external to the computer and that transmits radio frequency signals responsive to data received from the personal computer via the port (transmitter portion resides in the gateway external to the computer 22 and that transmits signals upstream responsive to data received from the personal computer via the port – see include, but are not limited to, figures 3-5, paragraphs 0022, 0048, 0056, 0081-0082, 0086-0088, 0118-0119, 0122, 0125, 0179);

- a receiver portion that resides in the external box and that receives radio frequency signals and converts the received signals to data for transfer to the personal computer via the port (portions in the gateway that receives downstream signals and converted the received signals for transmitting via the port to the computer – see figures 3-5 and discussed in the rejection of claim 13). Rakib further discloses an auxiliary bus for connecting the transmitter portion and receiver portion as discussed in the rejection

of claim 14. However, Rakib does not explicitly disclose the upstream signal is transmitted to a satellite, a synchronizing signal is conveyed from the receiver portion to the transmitter portion via the auxiliary bus and including a programmable frequency synthesizer and programmable modulator for allowing a transmission/reception frequency and modulation to be selectively modified by the personal computer, and synchronizing signal is conveyed from the receiver and the transmitter via the auxiliary bus.

Dinwiddie et al. discloses a receiver portion (receives 104 or 108 receives signals from audio video sources 45 or 49-figures 5A, 5B, 10A, 10B) includes a programmable frequency synthesizer and programmable modulator for allowing a transmission/reception frequency and modulation to be selectively modified by the personal computer (col. 9, lines 15-40, col. 16, lines 50-67). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Rakib to use the teaching as taught by Dinwiddie in order to convert the signals to a format that suitable for providing to display device. However, Rakib in view of Dinwiddie does not explicitly disclose the upstream signal is transmitted to a satellite, synchronizing signal is conveyed from the receiver and the transmitter via the auxiliary bus.

Soleimani discloses a satellite transceiver wherein upstream signals are transmitted to a satellite (see figures 1-3). Therefore, it would have been obvious to one of ordinary skill

in the art at the time the invention was made to modify Rakib in view of Dinwiddie with the teaching as taught by Soleimani in order to provide an alternative way to transmit signal or to transmit upstream signal faster. Soleimani further discloses an auxiliary bus directly connecting the transmitter portion 90 and receiver portion 88 – figure 3.

However, Rakib in view of Dinwiddie and Soleimani does not explicitly discloses synchronizing signal is conveyed from the receiver and the transmitter via the auxiliary bus.

Emi discloses synchronizing signal is conveyed from the receiver portion to the transmitter portion via the auxiliary bus (see include, but are not limited to, figures 1-3, col. 2, lines 44-59, col. 4, line 62-col. 5, line 22, col. 6, lines 37-48). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Rakib in view of Dinwiddie and Soleimani to use the teaching as taught by Emi in order to reduce packet collision thereby improve transmission efficiency.

Regarding claim 16, Rakib in view of Dinwiddie and Soleimani and Emi teaches a transceiver as discussed in the rejection of claim 15. Emi also discloses an auxiliary bus connects the transmitter portion and the receiver portion as discussed in the rejection of claim 15 above (see also figure 1-2), the transmitter portion and the receiver portion inherently has respective connectors so that the auxiliary bus connect the transmitter portion and the receiver portion to each other.

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Regarding claim 18, Rakib in view of Dinwiddie and Soleimani and Emi teaches a transceiver as discussed in the rejection of claim 15. Emi further discloses the transmitter portion includes a frequency synthesizer (e.g. frequency synthesizer 8 – figure 1) for generating the radio frequency signals. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Rakib in view of Dinwiddie and Soleimani with the teaching as further taught by Emi in order to improve efficiency in data transmission.

Regarding claim 24, Rakib in view of Dinwiddie and Soleimani and Emi teaches a transceiver as discussed in the rejection of claim 15. Rakib further discloses the transmitter portion comprises a modem (see include, but are not limited to, figures 3-4b). Thus, the transmitter portion includes modulation circuitry. Emi further discloses the transmitter includes radio frequency modulation circuitry and the modulation circuitry (encoding circuit 1 and modulating circuit 2 – figures 1-2) includes an encoder that encodes error correction into the transmitted signal (figures 1-2, col. 4, line 62-col. 5, line 30). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Rakib in view of Dinwiddie and Soleimani and Emi to include the teaching as further taught by Emi in order to improve efficiency in data transmission.

9. Claims 26 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rakib et al. (US 2004/0172658 A1) in view of Fleming (US 6,073,188), Soleimani et al. (US 5,678,228), and further in view of Emi (US 5,715,275).

Regarding claim 26, the limitations of the method as claimed correspond to the limitations of the transceiver as claimed in claim 13, and are analyzed as discussed in the rejection of claim 13. However, Rakib in view of Fleming and Soleimani does not specifically disclose the additional limitation of conveying a synchronizing signal from the receiver to the transmitter via the auxiliary bus.

Emi discloses synchronizing signal is conveyed from the receiver portion to the transmitter portion via the auxiliary bus (see include, but are not limited to, figures 1-3, col. 2, lines 44-59, col. 4, line 62-col. 5, line 22, col. 6, lines 37-48). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Rakib in view of Dinwiddie and Soleimani to use the teaching as taught by Emi in order to reduce packet collision thereby improve transmission efficiency.

Regarding claim 31, the additional limitation as claimed correspond to the additional limitation of claim 24, and are analyzed as discussed with respect to the rejection of claim 24.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Beckert et al. (US 6,175,789 B1) discloses USB hub coupled to personal computer (figure 2).

Umeda (US 5,805,573) discloses satellite communication system with variable number of satellite communication channels.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Son P. Huynh whose telephone number is 571-272-7295. The examiner can normally be reached on 9:00 - 6:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher S. Kelley can be reached on 571-272-7331. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Son P. Huynh

A handwritten signature in black ink, appearing to read 'Son P. Huynh', with a stylized flourish extending from the end.

May 23, 2007